

ACHAT 108 SUBA  
active subwoofer

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# 1 General notes


This user manual contains important information on the safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to another user, be sure that they also receive this manual.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

## **Symbols and signal words**

This section gives an overview of the symbols and signal words used in this user manual.

Signal word	Meaning
<b>DANGER!</b>	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
<b>CAUTION!</b>	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
<b>NOTICE!</b>	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – high-voltage.

Warning signs	Type of danger
	Warning – danger zone.

## 2 Safety instructions

### Intended use

This device is intended to be used in a sound reinforcement system. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

### Safety



#### **DANGER!**

#### **Danger for children**

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



**DANGER!**

**Electric shock caused by high voltages inside**

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.



**DANGER!**

**Electric shock caused by short-circuit**

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.





**CAUTION!**

**Possible hearing damage**

The device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage.

Decrease the volume level immediately if you experience ringing in your ears or hearing impairment. If this is not possible, keep a greater distance or use sufficient ear protectors.



**NOTICE!**

**Risk of fire**

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.



### **NOTICE!**

#### **Operating conditions**

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.



### **NOTICE!**

#### **Power supply**

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

### 3 Features

Special features of the device:

- Inputs: XLR/1/4" combi sockets, RCA sockets
- Outputs: 2 lockable NL4 mounting connectors for passive speaker boxes (top)
- 8" woofer
- Volume and bass control
- Black textured coating

## 4 Installation and starting up

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.



### **NOTICE!**

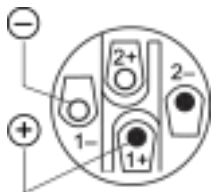
#### **Possible property damage by magnetic fields**

Loudspeakers produce a static magnetic field. Therefore, maintain an appropriate distance to devices that can be adversely affected or damaged by an external magnetic field.

## 4.1 Pin assignment

### NL4 mounting connectors as speaker connectors

The drawing alongside shows the pin assignment of the lockable NL-4 mounting connectors.



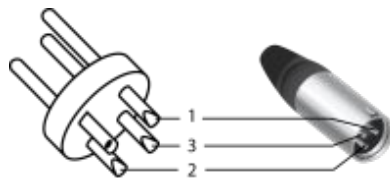
### 1/4" jack socket as signal inputs



Drawing and table indicate the pin assignment of 1/4" TS jacks to be used with the unit.

1	Signal
2	Ground, shielding

### XLR connectors as signal inputs



XLR/1/4" combi sockets (balanced wiring) as signal inputs. Drawing and table indicate the pin assignment of XLR plugs to be used with the unit.

1	Ground, shielding
2	Positive signal (+)
3	Negative signal (-)

**RCA connectors as signal inputs**

Drawing and table indicate the pin assignment of RCA plugs to be used with the unit.

1	Signal
2	Ground, shielding

### 4.2 Tips on handling speakers

We recommend you to set up the speakers in a way, that the sound signals can reach the audience unobstructedly. It will often be helpful to mount the speakers on tripods. Thus, the sound will be evenly spread with maximum range throughout the audience area.

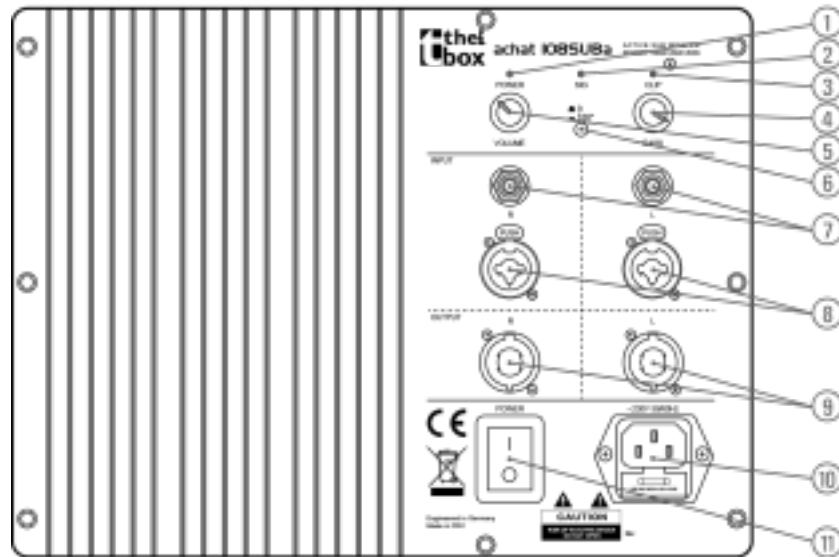
Always use high grade cable to connect your equipment. Otherwise you won't reach maximum sound quality.

For optimum results both impedance and power handling of the speakers must match the requirements of the amplifier. Always follow the technical specifications of the speakers! The overall impedance of the connected loudspeakers must not exceed the minimum output impedance of the amp. The amps RMS output power should be 50 % above the power handling capacity of the connected speakers.

If you notice distortion during operation, either the amp or the speaker is overloaded. This may permanently damage the amp or the speaker. Always reduce the volume when you hear distortion.



## 5 Connections and operating elements



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1	<b>POWER</b> This pilot lamp indicates that the device is switched on and operational.
2	<b>SIG</b> This pilot lamp indicates an incoming input signal.
3	<b>CLIP</b> Indicates overloading (Clipping). In this case the level of the input signal is too high.
4	<b>BASS</b> Use this control to increase or attenuate the low frequencies.
5	<b>VOLUME</b> Overall volume control (built-in subwoofer and connected external speakers).
6	<b>Phase switch.</b> Shifts the phasing of the subwoofer signal by 180°, if required. Thus, unwanted extinction effects due to interaction with other speakers can be avoided.

7	INPUT RCA jacks as signal inputs.
8	INPUT XLR/1/4" combi sockets as signal inputs.
9	OUTPUT NL4 sockets as connections for a pair of passive speakers.
10	IEC chassis connector with fuse holder for operating voltage supply.
11	POWER Mains switch to power the unit on and off.

## 6 Technical specifications

Inputs	XLR/1/4" combi sockets (balanced), RCA sockets (unbalanced)
Input impedance	20 k $\Omega$ (balanced), 10 k $\Omega$ (unbalanced)
Outputs	Lockable NL4 mounting connectors
Frequency response	40...125 Hz
Output power	100 W (RMS) for built-in speaker
Passive speaker output (top)	2 × 60 W (RMS) @ 4 $\Omega$
Crossover frequency	120 Hz
SPL	116 dB (max.)
Power supply	AC 220 – 240 V $\sim$ , 50/60 Hz
Power consumption	275 W
Fuse	3.5 A / 250 V, slow blow, 5 mm × 20 mm

Dimensions (W × D × H)	360 mm × 300 mm × 435 mm
Weight	11.5 kg

## 7 Protecting the environment

### Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

### Disposal of your old device



This device is subject to the European directive 2002/96/EC.

Do not dispose the device with your normal household waste.

Dispose this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.



